Appl. No. 10/689,517

Amdt. Dated June 11, 2004

Reply to Office action of May 19, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (Currently amended) A loader apparatus for use with a paintball marker having a paintball inlet, the loader apparatus comprising:
 - a) a cartridge, and a motive means and a delivery conduit,
- b)—said cartridge including a chamber for paintballs, said chamber having a paintball outlet, said cartridge further including a flow assistor, wherein said motive means is operatively connected to said flow assistor when said cartridge is attached to said base, wherein said cartridge is removably connectable with respect to said delivery conduit for communication of paintballs from said paintball outlet of said chamber to said delivery conduit paintball inlet,
- c) and wherein said delivery conduit is connectable with said paintball inlet of said paintball marker for communication of paintballs thereto, wherein, when said cartridge is connected with respect to said paintball marker, said motive means is operatively connectable to said flow assistor for driving said flow assistor.
- 2. (Currently amended) A loader apparatus as claimed in claim 1, further comprising a base, wherein said base includes said delivery conduit and said cartridge is removably connectable to said base.
- 3. (Original) A loader apparatus as claimed in claim 1, wherein said loader apparatus further comprises a pressurizing member for maintaining a force on said paintballs in said chamber to urge said paintballs towards said paintball outlet.
- 4. (Currently amended) A loader apparatus as claimed in claim 3, wherein said pressurizing member comprises a spring, said spring being operatively connected to

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said paintballs, so that said spring is adapted to act on said paintballs to force urge said paintballs towards said paintball outlet.

- 5. (Original) A loader apparatus as claimed in claim 1, wherein said flow assistor comprises a generally funnel-shaped surface surrounding said paintball outlet, said generally funnel-shaped surface comprising surface irregularities for agitating paintballs.
- 6. (Currently amended) A loader apparatus as claimed in claim 1, wherein said motive means is includes an electric motor.
- 7. (Original) A loader apparatus as claimed in claim 2, wherein said base further comprises a first mating surface, and said cartridge further comprises a second mating surface, which contacts said first mating surface when said cartridge is mounted on said base, and said apparatus further comprises a connector for releasably holding said first and second mating surfaces together.
- 8. (Original) A loader apparatus as claimed in claim 7, wherein said connector comprises a magnet, and a material that is magnetically attracted to said magnet.
- 9. (Currently amended) A loader apparatus as claimed in claim 8, claim 3, further comprising a delivery conduit, wherein said delivery conduit is positioned for communication of paintballs from said paintball outlet of said chamber to said paintball inlet of said paintball marker, wherein said delivery conduit comprises at least one paintball sensor for detecting the presence of paintballs in said flow delivery conduit, said at least one sensor is operatively connected to said motive means so that said sensor activates sends a signal to activate said motive means when said sensor does not detect the presence of a paintball.
- 10. (Currently amended) A loader apparatus as claimed in claim 9, wherein said paintball outlet comprises further comprising retractable stops positioned in said paintball outlet, said stops being adapted to retract from said paintball outlet to allow the passage of paintballs when said cartridge is attached to said base, and said stops being

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adapted to extend into said outlet to prevent the passage of paintballs when said cartridge is unattached from said base.

- 11. (Original) A loader apparatus as claimed in claim 2, wherein said motive means is positioned in said base.
- 12. (Original) A loader apparatus as claimed in claim 2, further comprising a first driven means positioned in said base, wherein said motive means is operatively connected to said first driven means, and further comprising a second driven means operatively connected to said flow assistor, wherein said first driven means is operatively connected to said second driven means when said cartridge is mounted to said base.
- 13. (Currently amended) A loader apparatus for use with a paintball marker having a paintball inlet, the loader apparatus comprising:
 - a) a cartridge and a delivery conduit,
- b) wherein said cartridge including includes a chamber for paintballs, said chamber defining a paintball outlet, wherein said cartridge is positionable for communication of paintballs from said paintball outlet of said chamber to said paintball inlet of said paintball marker, and a pressurizing member for maintaining a force on said paintballs in said chamber to urge said paintballs in said chamber towards said paintball outlet, wherein said pressurizing member is adapted to contact a plurality of paintballs simultaneously, wherein said cartridge is removably connectable with respect to said delivery conduit for communication of paintballs from said paintball outlet of said chamber to said delivery conduit,
- c) and wherein said delivery conduit is fluidically connectable to said paintball inlet of said paintball marker for communication of paintballs therewith.
- 14. (Currently amended) A loader apparatus as claimed in claim 13, further comprising a base, wherein said delivery conduit is connected to said base, and wherein said cartridge is removably attachable to said base.

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15. (Original) A loader apparatus as claimed in claim 14, wherein said cartridge includes

a flow assistor and said loader apparatus further includes a motive means operatively

connected to said flow assistor when said cartridge is attached to said base.

16. (Currently amended) A loader apparatus as claimed in claim 15, further comprising a

delivery conduit, wherein said delivery conduit is positioned for communication of

paintballs from said paintball outlet of said chamber to said paintball inlet of said

paintball marker, wherein said delivery conduit comprises at least one paintball sensor

for detecting the presence of paintballs in said delivery conduit, wherein said at least

one sensor is operatively connected to said motive means so that said motive means is

activated when said sensor does not detect the presence of a paintball.

17. (Currently amended) A loader apparatus as claimed in claim 16 claim 13, wherein

said pressurizing member comprises a spring, wherein said spring is operatively

connected to said paintballs, so that said spring is adapted to act on said paintballs to

force urge said paintballs towards said paintball outlet.

18. (Currently amended) A loader apparatus as claimed in claim 13, wherein said

motive means is includes an electric motor positioned in said base.

19. (Cancelled)

20. (Cancelled)

21. (New) A loader apparatus for use with a paintball marker having a paintball inlet,

the loader apparatus comprising:

a) a cartridge including a chamber for paintballs, said chamber having a

paintball outlet;

b) a base for connecting said cartridge to said paintball inlet for enabling

passage of paintballs from said chamber to said paintball inlet;

c) a driven flow assistor for inhibiting jams in a flow of paintballs towards said

paintball inlet; and

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- d) a motive means for driving said flow assistor, wherein said motive means is operatively connectable to said flow assistor, wherein said motive means is mounted to one of said base and said marker, so that said motive means is separate from said cartridge.
- 22. (New) A loader apparatus as claimed in claim 21, wherein said flow assistor is positioned at least partially in said chamber.
- 23. (New) A loader apparatus as claimed in claim 21, wherein said loader apparatus further comprises a pressurizing member for maintaining a force on said paintballs in said chamber to urge said paintballs towards said paintball outlet.
- 24. (New) A loader apparatus as claimed in claim 23, wherein said pressurizing member comprises a spring, said spring being operatively connected to said paintballs, so that said spring is adapted to act on said paintballs to force said paintballs towards said paintball outlet.
- 25. (New) A loader apparatus as claimed in claim 21, wherein said flow assistor comprises a generally funnel-shaped surface surrounding said paintball outlet, said generally funnel-shaped surface comprising surface irregularities for agitating paintballs.
- 26. (New) A loader apparatus as claimed in claim 21, wherein said base has a first mating surface, and said cartridge has a second mating surface, which contacts said first mating surface when said cartridge is mounted on said base, and said loader apparatus further comprises a connector for releasably holding said first and second mating surfaces together.
- 27. (New) A loader apparatus as claimed in claim 26, wherein said connector comprises a magnet, and a material that is magnetically attracted to said magnet.
- 28. (New) A loader apparatus as claimed in claim 27, wherein said delivery conduit comprises at least one paintball sensor for detecting the presence of paintballs in said flow conduit, said at least one sensor is operatively connected to said motive means so

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that said sensor activates said motive means when said sensor does not detect the presence of a paintball.

29. (New) A loader apparatus as claimed in claim 28, wherein said paintball outlet comprises retractable stops positioned in said paintball outlet, said stops being adapted to retract from said paintball outlet to allow the passage of paintballs when said cartridge is attached to said base, and said stops being adapted to extend into said outlet to prevent the passage of paintballs when said cartridge is unattached from said base.

30. (New) A loader apparatus as claimed in claim 21, wherein said motive means is positioned in said base.

31. (New) A loader apparatus as claimed in claim 21, wherein said motive means includes an electric motor positioned in said base.

32. (New) A loader apparatus as claimed in claim 21, wherein said base is integrally connected to said paintball marker.